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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,794	12/09/2003	Glenn D. Williams	LEAR 04147 PUS	4956
34007	7590	02/28/2006	EXAMINER	
BROOKS KUSHMAN P.C. / LEAR CORPORATION			AN, SANG WOOK	
1000 TOWN CENTER			ART UNIT	
TWENTY-SECOND FLOOR			PAPER NUMBER	
SOUTHFIELD, MI 48075-1238			1732	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

T-12

Office Action Summary	Application No. 10/731,794	Applicant(s) WILLIAMS, GLENN D.	
	Examiner Sang W. An	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 7-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/25/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6, drawn to the method of forming polyurethane skin, classified in class 264, subclass 255.
 - II. Claim 7-16, drawn to the apparatus of forming polyurethane skin, classified in class 239, subclass 290.
2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process can be performed by another materially different apparatus such as an apparatus with a heating device for preheating the in-mold coating compositions at the color manifold station. This modified apparatus could be used to perform essentially the same process as claimed.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Kevin Heint on 2/7/2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action.

Art Unit: 1732

Claims 7-16 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jourquin et al (US 5662996) in view of Nielsen et al (US 5716558).

Regarding claim 1 and 2, Jourquin et al teach a method of forming a polyurethane skin for an interior part of a vehicle (col 1 lines 7-12), comprising:

Art Unit: 1732

providing an in-mold coating composition (col 7 lines 19-34), spraying the in-mold coating composition towards a forming surface to create an in-mold coating layer (col 7 lines 19-34 & col 3 lines 64-67); and applying a layer of polyurethane over the in-mold coating layer to form the polyurethane skin (col 7 lines 31-57 & col 4 line 1).

However, Jourquin et al do not explicitly teach providing an air assisted spray nozzle capable of delivering an atomizing air stream and heating the in-mold composition to a temperature above ambient temperature to create a heated in-mold coating composition before the atomizing air is provided to the spray nozzle.

Nevertheless, Nielsen et al teach a spray-coating method where compressed air is used to assist atomization of the coating composition (col 11 lines 62-66). Furthermore, Nielsen et al teach heating up the air stream to a temperature above ambient temperature to increase the temperature of the coating composition before introducing the stream to the spray nozzle (col 12 lines 9-31). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use Nielsen's spray-coating teachings in Jourquin's method of forming a polyurethane skin for an interior part of a vehicle in order to (1) increase turbulent mixing & assist atomization (col 11 lines 62-66) and (2) counteract the cooling effect of the compressed fluid (col 12 lines 10-12). Moreover, Nielsen et al teach using polyurethane as possible spray-coating material (col 7 line 7).

Regarding claims 3 and 4, Jourquin et al do not teach heating the atomizing air stream to a temperature between 100°F and 200°F (claim 3) and between 120°F and 160°F (claim 4). However, Nielsen et al teach heating the air stream to a temperature

Art Unit: 1732

between 86°F and 194°F (col 12 line 14); which falls within the ranges disclosed in claims 3 and 4. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use Nielsen's teaching in Jourquin's method of forming a polyurethane skin for an interior part of a vehicle in order to counteract the cooling effect of the compressed fluid (col 12 lines 10-12) and increase solvent volatility (col 12 line 15).

Regarding claim 5, Jourquin et al teach that the layer of polyurethane is performed by spraying a layer of aromatic polyurethane (col 4 lines 1-3) over the in-mold coating layer after a flash cycle (col 7 lines 31-34).

Regarding claim 6, Jourquin et al do not teach heating the in-mold coating composition prior to entry of the in-mold coating composition into the spray nozzle, and wherein the in-mold coating is heated to a temperature of between 100°F and 180°F. However, Nielsen et al teach heating up the coating mixture to a temperature that substantially compensated for the drop in spray temperature (col 2 lines 25-29) and suggest heating the mixture to a temperature range between 122°F and 176°F (col 9 lines 64-67 & col 10 lines 1-22). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use Nielsen's teaching in Jourquin's method of forming a polyurethane skin for an interior part of a vehicle in order to increase the evaporation rate of the solvent (col 10 lines 7-12)

Art Unit: 1732


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang W. An whose telephone number is (571) 272-1997. The examiner can normally be reached on Mon-Fri 7 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sang Wook An
Patent Examiner
Art Unit 1732
February 7, 2006


MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER